

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	12	Etches NEAR Robert	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L2	14	Pain NEAR Bertrand	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L3	16	petitte NEAR james	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L4	2	Van ADJ de ADJ Lavoisier NEAR Marie-Cecile	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L5	12	ORIGEN NEAR THERAPEUTICS	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L6	78	chimeric NEAR chicken	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:15
L7	940	(chicken SAME embryonic SAME stem) AND (transgenic OR chimeric)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:14
L8	47	Chicken embryonic stem cell	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2005/05/16 10:15
L9	20	I6 and I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/05/16 10:15

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(FILE 'HOME' ENTERED AT 10:06:03 ON 16 MAY 2005)

FILE 'MEDLINE, CANCERLIT, AGRICOLA, CAPLUS, SCISEARCH' ENTERED AT
10:06:13 ON 16 MAY 2005

L1 1114 S CHIMERIC (L) CHICKEN
L2 138 S CHICKEN (L) (EMBRYONIC STEM CELL)
L3 13 S L1 AND L2
L4 11 DUP REM L3 (2 DUPLICATES REMOVED)
L5 7 S L4 AND PY<=2002
L6 7 SORT L5 PY
L7 9 S L4 AND (TRANSGENE OR GENETIC? OR TRANSFORM? OR TRANSFECT?)

L7 ANSWER 6 OF 9 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2003:847851 SCISEARCH

TI Genetic manipulation in chickens

SO WORLDS POULTRY SCIENCE JOURNAL, (SEP 2003) Vol. 59, No. 3, pp. 361-371.
Publisher: WORLDS POULTRY SCI ASSOC, CENTRE APPLIED POULTRY RES, HET
SPELDERHOLT, POSTBUS 31, 7360 AA BEEKBERGEN, NETHERLANDS.
ISSN: 0043-9339.

AU Naito M (Reprint)

AB Development of chicken embryo culture techniques provides precise methods for the manipulation of early chicken embryos and has made it possible to analyse the results of the manipulation in hatched chickens. Various attempts have been made to introduce exogenous DNA into the chicken germline, but an efficient method for producing transgenic chickens by non-viral methods has not yet been devised. Since the system for producing germline chimaeric chickens has been established by the transfer of primordial germ cells isolated from early stage embryos, manipulation of primordial germ cells seems to be one of the most promising methods for genetic manipulation in chickens.

L7 ANSWER 7 OF 9 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2003:484881 SCISEARCH

TI The investigation of cell culture conditions to maintain chicken embryonic stem cells as totipotent cells

SO ASIAN-AUSTRALASIAN JOURNAL OF ANIMAL SCIENCES, (AUG 2003) Vol. 16, No. 8, pp. 1102-1107.
Publisher: ASIAN-AUSTRALASIAN ASSOC ANIMAL PRODUCTION SOCIETIES, COLLEGE AGRICULTURE LIFE SCIENCES, DEPT ANIMAL SCIENCE TECHNOLOGY, SUWON 441-744, SOUTH KOREA.
ISSN: 1011-2367.

AU Du L X (Reprint); Jing A

AB The ES cell can provide a useful system for studying differentiation and development in vitro and a powerful tool for producing transgenic animals. To investigate the culture condition of chicken embryonic stem (CES) cells which can retain their multipotentiality or totipotency, three kinds of feeder layer cells, SNL cells, primary mice embryonic fibroblasts (PMEF) cells and primary chicken embryonic fibroblasts (PCEF) cells, were used as the feeder cells in media of DMEM supplemented with leukemia inhibitory factor (LIF), basic fibroblast growth factor (bFGF) and stem cell factor (SCF) for co-culture with blastoderm cells from stage X embryos of chicken. The alkaline phosphatase (AKP) test, differentiation experiment in vitro and chimeric chicken production were carried out. The results showed that culture on feeder layer of PMEF yielded high quality CES cell colonies. The typical CES cells clone shape revealed as follows: nested aggregation (clone) with clear edge and round surface as well as close arrangement within the clone. Strong alkaline phosphatase (AKP) reactive cells were observed in the fourth passage cells. On the other hand, the fourth passage CES cells could differentiate into various cells in the absence of feeder layer cells and LIF in vitro. The third and fourth passage cells were injected into the subgerminal cavity of recipient embryos at stage X. Of 269 Hailan embryos injected with CES cells of Shouguang Chickens, 8.2% (22/269) survived to hatching, 5 feather chimeras had been produced. This suggests that an effective culture system established in this study can promote the growth of CES cells and maintain them in the state of undifferentiated and development, which lays a solid foundation for the application of CES cells and may provide an alternative tool for genetic modification of chickens.

L7 ANSWER 9 OF 9 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2000:607205 SCISEARCH

TI Transgenic chickens: Past, present, and future

SO AVIAN AND POULTRY BIOLOGY REVIEWS, (AUG 2000) Vol. 11, No. 2, pp. 63-80.
Publisher: SCIENCE & TECHNOLOGY LETTERS, PO BOX 81, NORTHWOOD HA6 3DN,
MIDDX, ENGLAND.
ISSN: 1470-2061.

AU Zajchowski L D; Etches R J (Reprint)

AB Transgenic chickens hold great promise in basic biological research and in industrial applications. A number of different strategies designed to allow the manipulation of the avian genome have been investigated with varying degrees of success. Infection of chick embryos with retroviral vectors has successfully produced transgenic chickens by exploiting the natural abilities of retroviruses to enter cells and integrate into the host chromosomes. However, technical and safety considerations limit the usefulness of retrovirus-mediated gene transfer, particularly in agricultural applications. Microinjection of DNA into the fertilized ovum has also successfully produced transgenic birds. Unfortunately, microinjection is a difficult procedure which is only rarely successful. The direct transfection of early embryos in ovo has been attempted, but only transient gene expression has been observed. Sperm-mediated gene transfer has been suggested, as DNA can associate with chicken sperm cells, however, no transgenic chickens with stably integrated transgenes have been produced by this method. Transgenesis via the use of chimeric intermediates constructed with primordial germ cells or blastodermal cells has been proposed to allow precisely designed gene targeting experiments to be carried out. While it is now possible to routinely produce chimeras using both primordial germ cells and blastodermal cells, long-term culture techniques which would permit the genetic modification of blastodermal or primordial germ cells by homologous recombination in vitro are not yet available. Overall, despite significant progress, much research is still required in order to establish practical, efficient and economical techniques for the production of transgenic chickens.